

Amendments to the Claims

1. (Currently Amended) A method for the manufacture of a substance having an apoptosis-inducing ability characterized in including ~~the following steps~~,

~~(1) a step of~~ subjecting at least one compound selected from the following (a), (b), (c) and (d) (excluding uronic acid and/or uronic acid derivatives; and compounds which contain uronic acid and/or uronic acid derivatives) to a heating treatment at 30-400° C for from a few seconds to a few days:

(a) pentose;

(b) pentose derivatives;

(c) compounds containing pentose;

(d) compounds containing pentose derivatives; and

~~(2) purifying the substance having an apoptosis-inducing ability from the heat-treated compound.~~

To obtain a substance that contains a compound selected from

4,5-dihydroxy-2-pental,

4-hydroxy-2-cyclopenten-1-one,

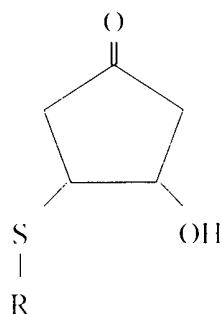
4(9-adeninyl)-2-cyclopenten-1-one,

4(9-guaninyl)-2-cyclopenten-1-one,

2-(3,4-dihydroxy-1-butenyl)-4-(2-formylvinyl)1,3-dioxolane,

1,5-epoxy-1-hydroxy3-penten2-one, and

a compound represented by the formula [I]

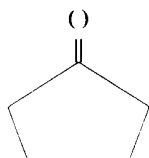


[1]

(In the formula, R is a residual group after removal of an SH group from an amino acid containing an SH group or a peptide containing an amino acid containing an SH group.)

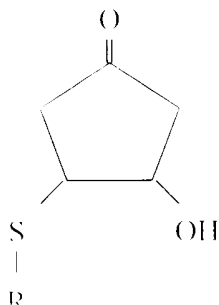
2. (Original) A method for the manufacture according to claim 1 which pentose is ribose or xylose.
3. (Original) A method for the manufacture according to claim 1 which pentose derivatives are deoxypentose.
4. (Original) A method for the manufacture according to claim 1 which pentose derivatives are deoxyribose.
5. (Original) A method for the manufacture according to claim 1 which compounds containing pentose are ribonucleoside, ribonucleotide, or ribonucleic acid.
6. (Original) A method for the manufacture according to claim 1 which compounds containing pentose are pentose where a group of capable of having a negative charge is bonded at 5-position.

7. (Original) A method for the manufacture according to claim 1 which pentose derivatives are pentose derivatives where a group of capable of having a negative charge is bonded at 5-position.
8. (Original) A method for the manufacture according to claim 7 which a group of capable of having a negative charge is phosphoric acid group or sulfuric acid group.
9. (Original) A method for the manufacture according to claim 1 which compounds containing pentose derivatives are deoxyribonucleoside, deoxyribonucleotide, and deoxyribonucleic acid.
10. (Original) A method for the manufacture according to claim 1 in which the substance having an apoptosis-inducing ability are the compounds selected from 4,5-dihydroxy-2-pental, 4-hydroxy-2-cyclopenten-1-one, 4-(9-adeninyl)-2-cyclopenten-1-one, 4-(9-guaninyl)-2-cyclopenten-1-one, 1,5-epoxy-1-hydroxy-3-penten-2-one, and 4,5-dihydroxy-2-cyclopenten-1-one.
11. (Previously Amended) An apoptosis-inducing compound selected from
- 4-(9-adeninyl)-2-cyclopenten-1-one,
- 4-(9-guaninyl)-2-cyclopenten-1-one,
- 1,5-epoxy-1-hydroxy-3-penten-2-one,
- 2-(3,4-dihydroxy-1-butenyl)-4-(2-formylvinyl)-1,3-dioxolane, and
- the compound represented by the following formula [I]



(In the formula, R is a residual group after removal of an SH group from an amino acid containing an SH group or a peptide containing an amino acid containing an SH group.)

12. (Currently Amended) A pharmaceutical agent for therapy of cancer ~~a disease selected from the group consisting of cancer, rheumatism, diabetes mellitus, dwarfism, systemic hypotension, lowering in blood pressure response, autoimmune disease, inflammation, arthritis, rheumatic arthritis, inflammatory intestine diseases, insufficiency of blood vessel function, etiological dilation of blood vessel, damage of tissues, cardiovascular ischemia, sensitivity to pain, cerebral ischemia, diseases caused by angiogenesis and viral diseases,~~ characterized in that said pharmaceutical agent contains a compound selected from
- 4,5-dihydroxy-2-pentenal,
 - 4-hydroxy-2-cyclopenten-1-one,
 - 4-(9-adeninyl)-2-cyclopenten-1-one,
 - 4-(9-guaninyl)-2-cyclopenten-1-one,
 - 2-(3,4-dihydroxy-1-butenyl)-4-(2-formylvinyl)-1,3-dioxolane,
 - 1,5-epoxy-1-hydroxy-3-penten-2-one, and
- a compound represented by the formula [I] as an effective component



[I]

(In the formula, R is a residual group after removal of an SH group from an amino acid containing an SH group or a peptide containing an amino acid containing an SH group).

13. (Cancelled)

14. (Original) Food or beverage where a substance having an apoptosis-inducing ability obtained by subjecting at least one compound selected from the following (a), (b), (c), and (d) [excluding uronic acid and/or uronic acid derivatives; and compounds which contain uronic acid and/or uronic acid derivatives] to a heating treatment and/or a partially purified product thereof are/is contained therein, diluted therewith and/or added thereto:

- a. Pentose;
- b. Pentose derivatives;
- c. Compounds containing pentose;
- d. Compounds containing pentose derivatives

15. (Cancelled)

16. (Original) A method for the manufacture according to claim 10 in which pentose is ribose or xylose.

17. (Original) A method for the manufacture according to claim 10 in which pentose derivatives are deoxypentose.

18. (Original) A method for the manufacture according to claim 10 in which pentose derivatives are deoxyribose.

19. (Original) A method for the manufacture according to claim 10 in which compounds

20. (Original) A method for the manufacture according to claim 10 in which compounds containing pentose contain pentose comprising a group capable of having a negative charge bonded at 5-position.
21. (Original) A method for the manufacture according to claim 10 in which pentose derivatives include pentose derivatives comprising a group capable of having a negative charge bonded at 5-position.
22. (Original) A method for the manufacture according to claim 10 in which compounds containing pentose contain pentose comprising a phosphoric acid group or sulfuric acid group selected from a group capable of having a negative charge bonded at 5-position.
23. (Original) A method for the manufacture according to claim 10 in which compounds containing pentose derivatives contain pentose derivatives comprising a phosphoric acid group or sulfuric acid group selected from a group capable of having a negative charge bonded at 5-position.
24. (Original) A method for the manufacture according to claim 10 in which compounds containing pentose derivatives are deoxyribonucleoside, deoxyribonucleotide, and deoxyribonucleic acid.
25. (Original) A method for the manufacture according to claim 6 in which the group capable of having a negative charge is a phosphoric acid group or a sulfuric acid group.
26. (New) A pharmaceutical agent for therapy of diabetes mellitus of type II or dwarfism, characterized in that said pharmaceutical agent contains 4,5-dihydroxy-2-pentenal as

27. (New) A pharmaceutical agent for therapy of rheumatism, characterized in that said pharmaceutical agent contains a compound selected from
- 4,5-dihydroxy-2-pentenal,
- 4-hydroxy-2-cyclopenten-1-one,
- 2-(3,4-dihydroxy-1-butenyl)-4-(2-formylvinyl)1,3-dioxolane, and
- 4(9-guaninyl)-2-cyclopenten-1-one as an effective component.
28. (New) A pharmaceutical agent for therapy of a disease selected from the group consisted of systemic hypotension, lowering in blood pressure response, autoimmune disease, inflammation, arthritis, rheumatic arthritis, diabetes mellitus, inflammatory intestine diseases, insufficiency of blood vessel function, etiological dilation of blood vessel, damages of tissues, cardiovascular ischemia, sensitivity to pain, cerebral ischemia, and diseases caused by angiogenesis characterized in that, said pharmaceutical agent contains 2-(3,4-dihydroxy-1-butenyl)-4-(2-formylvinyl)1,3-dioxolane as an effective component.
29. (New) A pharmaceutical agent for therapy of viral diseases, characterized in that said pharmaceutical agent contains a compound selected from 4,5-dihydroxy-2-pentenal and 4-hydroxy-2-cyclopenten-1-one as an effective compound.